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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,895	03/28/2001	Keiichi Onodera	041514-5116	9524

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EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">09/817,895</p>	<p>Applicant(s)</p> <p align="center">ONODERA ET AL.</p>	
	<p>Examiner</p> <p align="center">Hai C. Pham</p>	<p>Art Unit</p> <p align="center">2861</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 02/14/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24,25,27 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24,25,27 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date <u>02/01/06, 02/14/06</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____</p> |
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DETAILED ACTION

Request For Continued Examination

1. The request filed on 02/14/06 for a Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/817,895 is acceptable and a RCE has been established. An action on the RCE follows.

Claim Objections

2. Claims 24 and 25 are objected to because of the following informalities:

Claim 24:

- Line 19, before "adapted", it is suggested to add --wherein said information recording system is-- to provide clarity to the claimed language.

Claim 25:

- Line 19, before "adapted", it is suggested to add --wherein said information recording system is-- to provide clarity to the claimed language.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

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by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 30 is rejected under 35 U.S.C. 102(e) as being anticipated by Koyama (U.S. 6,556,234) in view of Azuma (JP 10-124936) (*the extra reference in Azuma is used to show an inherent characteristic of a feature taught by Koyama. See MPEP 2131.01*).

Koyama discloses an apparatus for writing a visible image pattern onto an optical recording medium, the apparatus comprising a driving component for driving the optical recording medium (the driving component being inherent to the apparatus for writing a visible image pattern), and a writing component (the same laser as the recording means 13 or an additional laser scanning, not shown) (col. 3, lines 8-10) for forming a visible image pattern (predetermined pattern 7) by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed (col. 4, lines 1-12), wherein said writing component forms said visible image pattern by generation of a difference in reflectance of said change in optical characteristic of the recording layer where pits are formed as compared to the

pit-less portion through irradiation of the light on the recording layer formed in the optical recording medium (col. 2, lines 42-58) and wherein said writing component is adapted to form an image pattern having a plurality of gray scale levels through provision of different sizes of the pits [or different distances between adjacent ones of the pits] (the predetermined visual pattern 7 can be created as a gradation pattern by varying the duration of the exposure by the laser light *and thus by varying the length or size of the pits*) (col. 4, lines 29-40). It is noted that Azuma teaches what is known in the art that the shape or length of the pit formed on the optical disc is varied by controlling the exposure time during ON period (see English Translation, paragraph [0013]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama in view of Nanbu et al. (U.S. 5,321,486).

Koyama discloses an apparatus for writing a visible image pattern onto an unrecorded area of an optical recording medium, the apparatus comprising a driving component for driving the optical recording medium (the driving component being inherent to the apparatus for writing a visible image pattern), and a writing component (the same laser as the recording means 13 or an additional laser scanning, not shown)

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(col. 3, lines 8-10) for forming a visible image pattern (7) by irradiating of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed (col. 2, lines 42-58) (col. 4, lines 1-12), a data generating component (image processing box 9) for generating data of the visible image pattern to be formed in the recording layer of the recording medium, wherein said writing component modulates the light based on image pattern data generated by said data generating component and irradiates the modulated light on the recording layer (col. 3, lines 8-10), an editing component for editing the image pattern data generated by said data generating component (the image processing 9 processes the image pattern by varying the size and the number in accordance with the space available for recording the image pattern) (col. 3, lines 44-46), a reading component (e.g., using a light source and an optical reading head, not shown) for optically reading information already recorded in said recording layer of said optical recording medium (col. 2, lines 30-37), wherein said editing component detects an unrecorded area in said recording layer based on information read by said reading component or reflected light quantity from said optical recording medium (in box 8 of Fig. 3, the unrecorded area of the information disc is determined based on the difference in the reflectance between the information recording area and the unrecorded area) (col. 3, lines 26-29), and automatically edits image pattern data generated by said data generating component so that said image pattern matches to said detected unrecorded area (col. 3, lines 1-10 and lines 42-46).

However, Koyama fails to teach prohibiting formation of the visible image pattern when the size of the unrecorded area of the recording medium is found smaller than the size of the visible image pattern.

Regardless, Nanbu et al. discloses an image forming apparatus, which performs an image formation operation when the size of the image recording area is larger than the size of the image to be recorded, and which stops the image formation operation when the detected size of the image recording area is smaller than the size of the image to be recorded (col. 4, line 65 to col. 5, line 6).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to implement the inhibition of the image formation operation in the device of Koyama when the detected size of the image recording area is smaller than the size of the image to be recorded as taught by Nanbu et al. The motivation for doing so would have been to prevent unnecessary image forming operation, which would otherwise result in a poor printing.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama in view of Minami et al. (U.S. 6,712,464).

Koyama discloses all the basic limitations of the claimed invention (please refer to paragraph 6 for the rejection of the similar claimed limitations) except for the prohibition of the formation of the visible image pattern when the width of the unrecorded area of the recording medium is found smaller than the width of the visible image pattern.

Regardless, Minami et al. discloses an image processing and recording apparatus including a means for stopping the image recording operation when the width of the image recording area is found smaller than the width of the image to be formed (col. 2, lines 60-67).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to implement the inhibition of the image formation operation in the device of Koyama when the detected width of the image recording area is smaller than the width of the image to be formed as taught by Minami et al. The motivation for doing so would have been to prevent unnecessary image forming operation, which would otherwise result in a poor printing.

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama in view of Tatsuno et al. (U.S. 5,281,797).

Koyama discloses an apparatus for writing a visible image pattern onto an optical recording medium, the apparatus comprising a driving component for driving the optical recording medium (the driving component being inherent to the apparatus for writing a visible image pattern), and a writing component (the same laser as the recording means 13 or an additional laser scanning, not shown) (col. 3, lines 8-10) for forming a visible image pattern (predetermined pattern 7) by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed (col. 2, lines 42-58) (col. 4, lines 1-12), wherein said writing

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component is commonly used for recording of data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area layer of the optical recording medium (col. 4, lines 7-12).

Koyama further teaches recording the predetermined visual pattern (7) as a gradation pattern by controlling the size of the pits by varying the amplitude of the laser light beam (col. 4, lines 29-39), but fails to teach using a light beam having a spot diameter larger than that of a light beam used for writing the data other than said visible image pattern.

Regardless, it is well known in the art that the formation of the pits having larger width can be made by adjusting either the intensity of the light beam or the diameter of the focused light beam spot, as evidenced by Tatsuno et al., an acknowledged prior art, which discloses an optical pickup device having a laser light source (1) for reading/writing information on the surface of the disc wherein the pits or recording marks are made larger by reducing the nominal aperture (e.g., NA) of the objective lens (6) (i.e., changing the diameter of the aperture diaphragm 5) to make the focused laser beam spot wider on the disc recording surface (col. 5, line 61 to col. 6, line 4).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form pits of larger width in the device of Koyama by increasing the incident beam spot on the disk as taught by Tatsuno et al. since Tatsuno et al. teaches this to be known as an alternative way for forming pits with a larger width onto an optical disc.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER

March 21, 2006